

SUPPLY CHAIN MANAGEMENT: A REVIEW

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ABSTRACT

Supply chains can be basically defined, as a group of interconnected companies that adds some sort of value, to a stream of transforming inputs from the source to the end product that are demanded by the end customers. The increasing globalization, which has led to increase in the demand of the products, has forced the companies for outsourcing and which, in turn has led to supply chain management. To deliver quality along with effective prices, supply chain management has become the need of the hour. The world is changing constantly and rapidly, and so are the demands of the consumer. In order to meet this, demand supply chain plays a crucial role. This paper aims at discussing various factors that play an important role, in supply chain management.

KEYWORDS: Transformed Inputs, Globalization & Chain Management

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INTRODUCTION

Supply Chain can be simply referred a chain, consisting of different links or rings, that form the chain. The chain comprises of various companies right from the OEM (Original Equipment Manufacturer) to its sub-vendors on one end, to the Retailers and the Consumers on the other end. It can be simply understood by the figure below

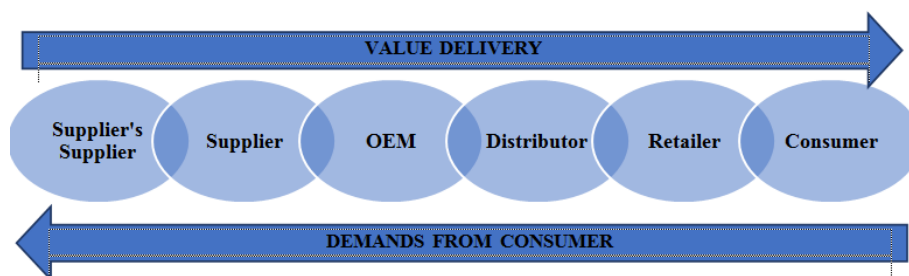


Figure 1: Supply Chain: Basic Layout

The diagram shown above is a very basic layout of the Supply Chain. It is the simplest representation of a supply chain. Though, the concept of Supply Chain management is very vast and broad. In real life scenarios, the Supply Chain is not so simple, infact it is very huge. The OEM's or OBM's have many suppliers. Some may have one, some may have 10, some may even have 100. These suppliers have their suppliers, which even further may have suppliers. Not only suppliers, even the Distributors are huge in number, through which the product is

transferred to the retailers after which, it finally reaches consumers. So, it can be seen that, supply chain becomes really huge and complex, with more than 1000s of distributors and Lakhs of consumers. Thus, in order for proper functioning of this chain, Supply Chain Management plays an extremely crucial and important role. Due to emergence of Supply chain, it is now no more a competition between two companies, but is a competition between the supply chain. A company cannot just survive with the innovative products and ideas, instead it has to have an extremely reliable Supply Chain. A company with a better supply chain would perform better and achieve better results, than a company with a weak supply chain.

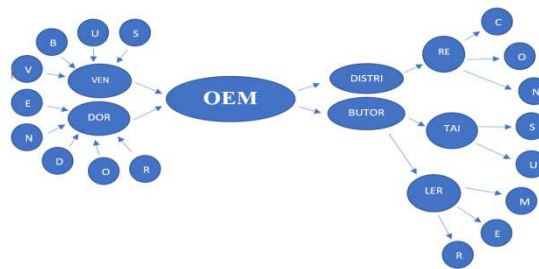


Figure 2: Supply Chain: Nested Layout

COMPONENTS OF SUPPLY CHAIN

Any party involved, be it directly or indirectly, in fulfilling the consumer demand is a part of the supply chain. As discussed earlier, not only the suppliers or the manufacturers, Distributors and Retailers, but also the transportation, warehouses and even the consumer himself are the part of the supply chain. This means that, even if the contribution of a supplier is infinitesimally small, it is part of the supply chain. If we consider an example of a shoe making company, right from the company which manufactures the box for the shoes to the company, that supplies laces for the shoes are all the part of the supply chain.

The main components of the Supply Chain are

- Consumers
- Retailers
- Wholesellers / Distributors
- Manufacturers
- Components or Raw Material Suppliers

Consumer, hierarchy wise, is on the top of the supply chain management. As all the products are purchased by the consumers, the products are designed as per the requirement of the consumer.

Retailers are the stores or the supermarkets, in which the products are made available for the consumers. Supermarkets like Bharti Walmart, Big Bazaar, More and the local stores are the examples of the retailers.

E-commerce giants like Amazon, Snapdeal, Flipkart are also a type of retailers. These types of retailers as well as supermarkets require their own supply chain management as they operate throughout the country. This is an example of supply chain within the supply chain.

Wholesellers / Distributors are those which receive the final finished product from the OEMs and supply it to the Retailers. Wholesellers act as a bridge between the retailers and the manufacturers.

Products like FMCG (Fast Moving Consumer Goods), Electronics and peripherals implement this type of flow, where the finished products are supplied to the wholesalers, who further supply it to the retailers and finally reach the consumers. The cost of the final product increases at each level.

In case of automotive industries, largely, the wholesalers and the retailers are the same. Automobiles from a particular industry supply to its dealers and are sold to the consumers. This helps in reducing the cost too.

Manufacturers are also known as OEM or OBM. These are the industries that manufacture or assemble the final product and the product is sold under their name. The OEM receives the components, required to assemble the final product from their vendors or some are manufactured in house. It is also possible that, the suppliers of an OEM are also an OEM, which supplies its products to various other OEMs.

Components or Raw Material Suppliers are the industries or firms that supply the OEMs with the raw material or the component necessary, for the production of the goods. A small timber industry, that contributes in the manufacturing of the paper or the sticker, that is pasted on the final product is also included in this. As seen in the nested supply chain, even these industries would have their suppliers.

REVENUE FOR SCM

The main objective of any business is to earn maximum profit, without sacrificing the quality of the product. Thus, the main aim of supply chain management is to maximize the profit or the overall value, that is generated through SCM. The value generated can be in simple terms defined as, the difference between the final price of the product that a consumer pays, to buy the product and the cost that incurred in fulfilling the consumers request. This includes all the costs, right from the manufacturing cost to the transportation cost and handling costs (Warehouses and Godowns).

$$VALUE = \text{Final cost of the product} - (\Sigma \text{all the costs incurred})$$

For an SCM, there is only one source of revenue. It is the consumer. Rest all is just an exchange of funds within the supply chain, which is different at different stages. Viz. The revenue generated from the consumer is sent to the wholeseller, by the retailer keeping his share of the profit. Later the remaining amount is given to the manufacturer, by the distributor keeping his share of profit and so on till the last end.

Costs and Their Optimization in Scm

The various costs associated with supply chain management are:

- Cost of materials
- Distribution Cost
- Manufacturing Cost

Cost of Materials: The cost of the materials can be reduced through strategic sourcing of materials, improvising bidding process and methods, and by optimizing supplier contracts. A proper study of Supply and Demand can also help in reducing the cost of the materials, by avoiding the obsolescence. Obsolescence leads to losses or basically increases the

total costs of the materials. Thus, the cost of materials plays a very important role in SCM.

Distribution Cost: These costs are the costs that incur in transportation, warehousing and networking, and can be reduced by network planning, warehouse management, and transportation management. The warehousing costs through better use of space, better inventory management in the warehouse, automation, and optimized labor scheduling can be substantially reduced. Network planning, through optimal positioning of the distribution centers, with respect to the suppliers and stores can reduce the cost of distribution. Transportation management capabilities, by optimizing shipments that reduce the total miles driven and enhance the container and trailer volume utilization help, reduce the distribution costs.

Manufacturing Cost: These costs are encountered while manufacturing and can be optimized through better process planning and scheduling. Supply chain optimization that promotes molding of the demand, inventory, resources, and operations are typically employed to generate feasible manufacturing schedules that can optimize the usage resources to produce manufacturing schedules that maximize the demand fulfillment for given orders.

CONCLUSIONS

Thus, Supply Chain Management can be practiced in any field right from academics to any organization. SCM, if applied in a proper way, can provide us to better control of systems with the product being delivered in large quantities and that too, without sacrificing the quality. And hence, we have seen various factors that affect supply chain management, the components of supply chain management and how it can be effective, than the conventional manufacturing management methods.

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